

205.5 - Radiopharmaceuticals (solution and gaseous forms)

These SRMs are intended for the calibration of radioactivity-measuring instruments. They are calibrated in terms of activity per gram of solution (except SRM 4415, which is calibrated in terms of activity). Each SRM is contained in a 5 mL flame-sealed glass ampoule and, except for SRM 4415, consists of the radionuclide dissolved in an aqueous solution (usually acidic). These SRMs are produced in collaboration with the Nuclear Energy Institute and, because of the short half lives, are available only at specific times. For the current production schedule, contact the Radioactivity Group. [Click here](#) for more information.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

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SRM	4401L	4401H	4404I	4404h	4407L	4407H	4410h	4412L	4412H	4415H	4416I	4416h	4417I	4417h	4425I	4426Ia	4427L	4427H
Description	Iodine-131 Solution	Iodine-131 Solution	Thallium-201 Solution	Thallium-201 Solution	Iodine-125 Solution	Iodine-125 Solution	Technetium-99m Solution	Molybdenum-99 Solution	Molybdenum-99 Solution	Xenon-133 Gas	Gallium-67 Solution	Gallium-67 Solution	Indium-111 Solution	Indium-111 Solution	Samarium-153 Solution	Strontium-89 Solution	Yttrium-90 Solution Radioactivity	Yttrium-90 Solution
Unit of Issue	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(Ampoule)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)	(5 mL)
Half Life (days)	8.0	8.0	3.0	3.0	59.4	59.4	0.3	2.74	2.74	5.243	3.3	3.3	2.8	2.8	1.9		64.0 hrs	64.0 hrs
Activity per gram (MBq · g ⁻¹)	25	1 GBq/g	7.509	80.35	3.078	152.9	1.428 GBq/g	26.03	889.6	11.90 GBq/g	7.863	89.16	3.763	61.15	4		5.115	54.40

*NIST requires [license certification](#) of purchaser before SRM can be shipped.